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AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Previously Presented) A system for routing a data packet between external networks, comprising:

a control element for managing routing tables;
forwarding elements, each receiving one of the routing tables from the control element, and forwarding the data packet according to a received routing table and a destination address in the data packet; and
a private network that connects the control element and the forwarding elements;
wherein the forwarding elements alter an element of the data packet if the data packet is received from one of the external networks, and do not alter the element of the data packet if the data packet is received from the private network.

2. (Original) The system of claim 1, wherein the private network comprises a local area network.

3. (Original) The system of claim 1, wherein the forwarding elements are distributed across the private network.

4. (Previously Presented) The system of claim 1, wherein the element comprises a time-to-live counter and altering comprises decrementing the time-to-live counter.

5. (Previously Presented) The system of claim 1, wherein, for each of the external networks, a routing table received by a forwarding element includes an interface port of the forwarding element through which an external network is accessible by the forwarding element.

6. (Previously Presented) The system of claim 1, wherein, for each of the external networks, a routing table received by a forwarding element includes information about a gateway to which an external network is directly connected.

7. (Currently Amended) A method of routing a data packet between external networks, comprising:

receiving, at a forwarding element, a routing table from a control element via a private network;

receiving the data packet at the forwarding element;

altering an element of the data packet if the data packet is received from one of the external networks, and not altering the element of the data packet if the data packet is received from the private network; and

forwarding the data packet according to the routing table and a destination address in the data packet.

8. (Previously Presented) The method of claim 7, wherein the element comprises a time-to-live counter, and altering comprises decrementing the time-to-live counter.

9. (Previously Presented) The method of claim 7, further comprising, at the control element, modifying an interface port field for each of the external networks in the routing table before sending the routing table to the forwarding element.

10. (Previously Presented) The method of claim 9, wherein modifying includes specifying, in the interface port field, a port of the forwarding element through which an external network is accessible by the forwarding element.

11. (Previously Presented) The method of claim 7, further comprising, at the control element, changing a gateway field for each of the external networks in the routing table before sending the routing table to the forwarding element.

12. (Previously Presented) The method of claim 11, wherein changing includes specifying, in the gateway field, one of plural forwarding elements to which an external network is directly connected.

13. (Previously Presented) An article comprising a machine-readable medium that stores instructions for routing data between external networks, the instructions causing a

machine associated with a forwarding element to:

receive, at the forwarding element, a routing table from a control element via a private network;

receive the data packet at the forwarding element;

alter an element of the data packet if the data packet is received from one of the external networks, and not alter the element of the data packet if the data packet is received from the private network; and

forward the data packet according to the routing table and a destination address in the data packet.

14. (Previously Presented) The article of claim 13, wherein the element comprises a time-to-live counter, and altering comprises decrementing the time-to-live counter.

15 to 18. (Canceled)